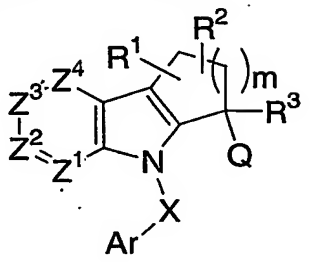
WHAT IS CLAIMED IS:

1. A compound of formula I:



I

and pharmaceutically acceptable salts and hydrates thereof, wherein:

Ar is aryl or heteroaryl each optionally substituted with one to four groups independently selected from Rg;

Q is –A-Q';

A is selected from (1) C_{1-3}alkyl optionally substituted with one to four halogen atoms or with one to two CF_3 groups, (2) $O(CH_2)_{1-2}$, and (3) $S(O)_n(CH_2)_{1-2}$;

Q' is selected from COOH, $CONR^aR^b$, $C(O)NHSO_2R^c$, SO_2NHR^a, SO_3H, PO_3H_2, and tetrazolyl;

one of Z^1, Z^2, Z^3 or Z^4 is N or N→O, and the others are independently selected from CH and C-Rg;

X is selected from $-(CR^dR^e)_a-W-(CR^dR^e)_b-$, phenylene, C_{3-6}cycloalkylidene and C_{3-6}cycloalkylene, wherein a and b are integers 0-1 such that the sum of a and b equals 0, 1 or 2, and W is a bond, $-SO_2-$, -C(O)-, $-CH(OR^a)-$, -C(O)O-, $-C(O)NR^a-$, $-CR^d=CR^e-$ or -C≡C-;

R^1 is selected from H, CN, OR^a, $-S(O)_nC_{1-6}$alkyl and C_{1-6}alkyl optionally substituted with one to six groups independently selected from halogen, OR^a and $-S(O)_nC_{1-6}$alkyl;

R^2 is H or C_{1-6}alkyl optionally substituted with one to six halogen; or

R^1 and R^2 together represent an oxo; or

R^1, R^2 and the atom(s) to which they are attached taken together form a 3- or 4- membered ring containing 0 or 1 heteroatom selected from NR^f, S, and O optionally substituted with one or two groups selected from F, CF_3 and CH_3;

R^3 is H or C_{1-6}alkyl optionally substituted with one to six groups independently selected from $-OR^a$ and halogen;

R^a and R^b are independently selected from H, C_{1-10}alkyl, C_{2-10}alkenyl, C_{2-10}alkynyl, Cy and Cy-C_{1-10}alkyl-, wherein said alkyl, alkenyl, alkynyl and Cy are optionally substituted with one to six substituents independently selected from halogen, amino, carboxy, C_{1-4}alkyl, OH, C_{1-4}alkoxy, aryl, heteroaryl, aryl-C_{1-4}alkyl-, hydroxy, CF_3, $-OC(O)C_{1-4}$alkyl, $-OC(O)NR^iR^j$, and aryloxy; or

R^a and R^b together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and $N-R^f$;

R^c is selected from C_{1-6}alkyl optionally substituted with one to six halogen, aryl and heteroaryl, wherein said aryl and heteroaryl are optionally substituted with halogen, -OC_{1-6}alkyl, C_{1-6}alkyl and wherein said alkyl is optionally substituted with one to six halogen;
R^d and R^e are independently H, halogen, aryl, heteroaryl, C_{1-6}alkyl or haloC_{1-6}alkyl;
R^f is selected from H, C_{1-6}alkyl, haloC_{1-6}alkyl, Cy, -C(O)C_{1-6}alkyl, -C(O)haloC_{1-6} alkyl, and -C(O)-Cy;
R^g is selected from (1) halogen, (2) CN, (3) C_{1-6}alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR^aR^b, $C(O)R^a$, $C(OR^a)R^aR^b$, SR^a and OR^a, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF_3, and COOH, (4) C_{2-6}alkenyl optionally substituted with one to six groups independently selected from halogen and OR^a, (5) Cy, (6) $C(O)R^a$, (7) $C(O)OR^a$, (8) $CONR^aR^b$, (9) $OCONR^aR^b$, (10) OR^a, (11) SH, (12) -$S(O)_nC_{1-6}$alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and $OC(O)R^a$, (13) -$S(O)_n$aryl, (14) -$S(O)_n$heteroaryl, (15) -$NR^aS(O)_nR^b$, (16) -NR^aR^b, (17) -$NR^aC(O)R^b$, (18) -$NR^aC(O)OR^b$, (19) -$NR^aC(O)NR^aR^b$, (20) -$S(O)_nNR^aR^b$, (21) NO_2, (22) C_{5-8}cycloalkenyl; wherein Cy is optionally substituted with one to eight groups independently selected from halogen, $C(O)R^a$, OR^a, C_{1-3}alkyl, aryl, heteroaryl and CF_3;
R^i and R^j are independently selected from hydrogen, C_{1-10}alkyl, Cy and Cy-C_{1-10}alkyl-; or
R^i and R^j together with the nitrogen atom to which they are attached form a ring of 5 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^f;
Cy is selected from heterocyclyl, aryl, and heteroaryl;
m is 1, 2 or 3; and
n is 0, 1 or 2.

2. A compound of Claim 1 wherin Q is CH_2CO_2H.

3. A compound of Claim 1 wherein X-Ar is -$(CR^dR^e)_a$-$(CR^dR^e)_b$-aryl, -SO_2-aryl or -C(O)-aryl, wherein said aryl is naphthyl or phenyl optionally substituted with 1 to 2 groups selected from R^g.

4. A compound of Claim 1 wherein X-Ar is benzyl or α-methylbenzyl wherein the phenyl moiety is substituted with one to three chlorine atoms.

5. A compound of Claim 1 wherein Z^3 is nitrogen and Z^1, Z^2 and Z^4 are independently selected from CH and CR^g.

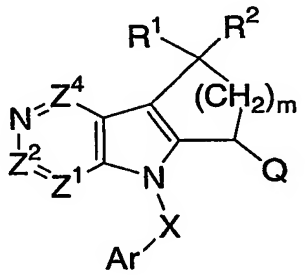
6. A compound of Claim 1 wherein Z^3 is nitrogen and one of Z^1, Z^2 and Z^4 is CRg and the others are CH.

7. A compound of Claim 1 wherein Z^3 is nitrogen, Z^1 is C-SO_2-C_{1-3}alkyl, Z^2 and Z^4 are each CH.

8. A compound of Claim 1 wherein m is 1 or 2.

9. A compound of Claim 1 wherein R^1, R^2 and R^3 are each hydrogen, or R^1 and R^2 together is oxo, and R^3 is hydrogen.

10. A compound of Claim 1 having the formula Ia:



Ia

wherein Ar, Q, X, Z^1, Z^2, Z^4, R^1, R^2 and m are as defined in Claim 1.

11. A compound of Claim 10 wherein Q is CH_2CO_2H.

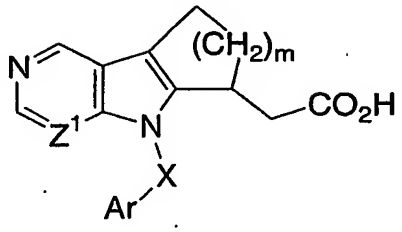
12. A compound of Claim 10 wherein X is CH_2 or $CH(CH_3)$.

13. A compound of Claim 10 wherein Ar is phenyl optionally substituted with one to three groups selected from Rg.

14. A compound of Claim 10 wherein Ar is phenyl optionally substituted with one to three halogen atoms.

15. A compound of Claim 10 wherein Z^2 and Z^4 are each CH.

16. A compound of Claim 1 having the formula Ib:



Ib

wherein Z^1 and m are as defined in Claim 1; Ar is phenyl optionally substituted with one or two Rg groups, and X is CH_2 or $CH(CH_3)$.

17. A compound of Claim 16 wherein Z^1 is C-SO_2-C_{1-3}alkyl.

18. A compound of Claim 16 wherein Ar is phenyl substituted with one or two halogen atoms.

19. A compound of Claim 16 wherein Z^1 is C-SO_2-C_{1-3}alkyl and Ar is phenyl substituted with one or two halogen atoms.

20. A pharmaceutical composition comprising a compound of any one of Claims 1 to 19 and a pharmaceutically acceptable carrier.

21. The composition of Claim 20 further comprising a second active ingredient selected from an antihistamine, a leukotriene antagonist and a leukotriene biosynthesis inhibitor.

22. A method for the treatment of prostaglandin D2 mediated diseases or conditions which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

23. A method of Claim 22 wherein said prostaglandin D2 mediated disease or condition is selected from nasal congestion, allergic rhinitis, asthma and flushing induced by niacin.

24. Use of a compound of formula I, as defined in any one of Claims 1 to 19, or a pharmaceutically acceptable salt or hydrate thereof, in the manufacture of a medicament for treatment of prostaglandin D2 mediated diseases or conditions.

25. A compound of formula I, as defined in any one of Claims 1 to 19, or a pharmaceutically acceptable salt or hydrate thereof, for use in medical therapy.

26. A compound salt or hydrate as defined in Claim 25 for use in treatment of a condition selected from nasal congestion, allergic rhinitis, asthma and flushing induced by niacin.

27. A prostaglandin receptor antagonist pharmaceutical composition comprising an acceptable antagonist amount of a compound of formula I, as defined in any one of Claims 1 to 19, or a pharmaceutically acceptable salt or hydrate thereof, in association with a pharmaceutically acceptable carrier.